

Appl. No. 09/359,599

**REMARKS/ARGUMENTS:**

These Remarks are in reply to the Office Action mailed April 7, 2004. Claims 1-8, 10-17, and 19-26 were pending and rejected. Claims 1-8, 10-17, and 19-26 are currently pending.

Claims 1-8, 10-17, and 19-26 were rejected under 35 U.S.C. 103 (a) over Sahami, U.S. Patent No. 6,564,197 in view of Pirolli, U.S. Patent No 5,895,470.. Applicants respectfully traverse the rejections.

**A. Overview**

Claim 1 recites the following :

- (a) identifying  $M$  substructures  $c_1$  through  $c_M$  each having  $m$  elements from among the  $n$  elements of the group of web pages  $C$ , where  $M$  equals  $n! / [(n-m)! m!]$ ;
- (b) for each substructure  $c_i$ , for  $i$  from 1 to  $M$ , determining a number  $n_i$  of the  $M$  substructures  $c_1$  through  $c_M$  that are similar to the substructure  $c_i$ ; and
- (c) computing a first entropy  $\Phi(m)$  based upon all the numbers  $n_i$  computed during step (b) and based upon  $M$  in computed step (a);

The present invention discloses a system in which an entropy value for a group of web pages is calculated by determining similarities between substructures of the web pages. Sahami discloses a decision tree system that generates an interrelated data cluster. Sahami fails to teach calculating entropies for web pages or the particular methods recited in the claims for doing so. Pirolli is likewise deficient.

For example, Sahami and Pirolli are deficient of any mention of computing an overall diversity measure for the system. The Examiner cites a section of Sahami that discloses an entropy value for individual characteristics within the database, but not a diversity measure for the entire database. The Examiner argues that the section disclosing "the entropy based influence measure" teaches the computation of a diversity

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measure. However, the section in question determines the entropy for particular features and eliminates them from consideration in generating the interrelated cluster. No overall diversity for the cluster is disclosed or suggested. The reference is specifically deficient of the steps recited in claim 1(a through c) for calculating the diversity measure. Pirolli is similarly deficient.

With regards to the dependent claims, the pending Office Action does not cite any location in Sahami or Pirolli in which these steps are disclosed or suggested. For example, claim 2 recites:

- (d) repeating steps (a) and (b) with  $m+1$  substituted for  $m$ ;
- (c) computing a second entropy  $\Phi(m+1)$  based upon all the numbers  $n_i$  and  $M$  computed during step
- (d); and
- (f) subtracting the second entropy  $\Phi(m+1)$  from the first entropy  $\Phi(m)$  to produce the diversity measure.

Neither Sahami nor Pirolli disclose computing a second entropy measure and subtracting the first entropy measure from the second entropy measure to produce the diversity measure. Likewise, claim 6 recites: wherein step (b) comprises the steps of:

for each substructure  $c_i$  for  $i$  from 1 to  $M$ :

monotonically renumbering  $m$  elements of  $c_i$  from 1 to  $m$ ; and

for each substructure  $c_j$  for  $j$  from 1 to  $M$ :

monotonically renumbering  $m$  elements of  $c_j$  from 1 to  $m$ ; and

determining the substructures  $c_i$  and  $c_j$  to be similar if and only if they are identical.

Neither Sahami nor Pirolli disclose monotonically renumbering elements of substructures and determining the two substructures to be similar if the renumbered substructures are identical.

Claims 4, 13, and 23 additionally recite

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for each substructure  $c_i$  for  $j$  from 1 to  $M$ :

computing a distance function  $d(c_i, c_j)$  representing a measure of a difference between substructure  $c_i$  and substructure  $c_j$ ;

comparing the distance function  $d(c_i, c_j)$  to a threshold; and

determining the substructures  $c_i$  and  $c_j$  to be similar if and only if the distance function  $d(c_i, c_j)$  is less than the threshold.

Neither Sahami nor Pirolli disclose generating a distance function between two substructures, comparing the distance function to the threshold, and determining that the difference is greater than the threshold. In fact, as with the other features recited in the dependent claims, Sahami does not disclose these features because Sahami is directed towards an entirely different field of endeavor. Sahami discloses a relational database that maps associations between features, rather than the recited system for determining a complexity of a structure.

Additionally, all of the Examiner's rejections rely upon a combination of Sahami and Pirolli, yet the Examiner provides no motivation to combine the two references. The Examiner provides a *benefit* for combining the references, but demonstrates no motivation, either explicit or implicit in either reference for combining them. The Federal Circuit has stated "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious *unless the prior art suggested the desirability of the modification*..... it is impermissible to use the claimed invention to piece together the prior art so that the claimed invention is rendered obvious". *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992)

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

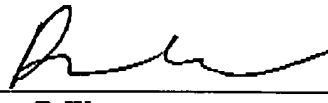
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The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 24-0037 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: September 7, 2004 By:   
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